CENTER FOR DRUG EVALUATION AND RESEARCH

APPROVAL PACKAGE FOR:

APPLICATION NUMBER 21-064

Microbiology Review(s)

AUG 2 7 1999

REVIEW FOR HFD-160 OFFICE OF NEW DRUG CHEMISTRY MICROBIOLOGY STAFF MICROBIOLOGIST'S REVIEW #2 OF NDA

August 25, 1999

A. 1. NDA 21-064 Amendment BI

SPONSOR Dupont Pharmaceuticals Company

331 Treble Cove Road North Billerica, MA 01862

- 2. PRODUCT NAMES: DEFINITY™ (Perflutren)
- 3. DOSAGE FORM AND ROUTE OF ADMINISTRATION: Injectable Suspension, IV
- 4. METHOD(S) OF STERILIZATION:
- 5. PHARMACOLOGICAL CATEGORY: Ultrasound Contrast Agent
- 6. DRUG PRIORITY CLASSIFICATION:
- B. 1. DATE OF INITIAL SUBMISSION: December 9, 1998
 - 2. DATE OF AMENDMENT: July 19, 1999
 - 3. RELATED DOCUMENTS: Microbiologist's review #1 of NDA (April 5, 1999)
 - 4. ASSIGNED FOR REVIEW: July 21, 1999
- C. <u>REMARKS</u>: This review covers the sponsors answers to microbiology deficiencies in the original NDA

D. <u>CONCLUSIONS</u>: This submission is recommended for approval on the basis of sterility assurance.

S/ 8-25-9う Bryan Riley, Ph.D.

cc:

HFD 160/Consult File HFD 160/K. Cho HFD 160/R. Kasliwal HFD 805/Consult File HFD 805/B. Riley

Drafted by: B. Riley, 8/25/99 R/D initialed by: P. Cooney,

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Por PHC 8-27-99

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REVIEW FOR HFD-160 OFFICE OF NEW DRUG CHEMISTRY MICROBIOLOGY STAFF MICROBIOLOGIST'S REVIEW #1 OF NDA

April 5, 1999

A. 1. NDA 21-064

SPONSOR

Dupont Pharmaceuticals Company

331 Treble Cove Road North Billerica, MA 01862

- 2. PRODUCT NAMES: DEFINITY™ (Perflutren)
- 3. DOSAGE FORM AND ROUTE OF ADMINISTRATION: Injectable Suspension, IV
- 4. METHOD(S) OF STERILIZATION:
- 5. PHARMACOLOGICAL CATEGORY: Ultrasound Contrast Agent
- 6. DRUG PRIORITY CLASSIFICATION:
- B. 1. DATE OF INITIAL SUBMISSION: December 9, 1998
 - 2. DATE OF AMENDMENT: N/A
 - 3. RELATED DOCUMENTS: None
 - 4. ASSIGNED FOR REVIEW: December 11, 1998
- C. <u>REMARKS</u>: DefinityTM consists of: Perfluoropropane gas, a mixture of three lipids, saline, propylene glycol, and glycerin. The drug product is and then

D. <u>CONCLUSIONS</u>: This application is approvable on the basis of sterility assurance, pending resolution of certain microbiology issues. Please see "Microbiologist's List of Deficiencies".

Bryan Riley, Ph.D. 4-5-99

cc:

HFD 160/Consult File HFD 160/K. Cho HFD 160/R. Kasliwal HFD 805/Consult File HFD 805/B. Riley

Drafted by: B. Riley, 4/5/99 R/D initialed by: P. Cooney,